AUG 1 4 2002





OIPE

1627

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/676,783

DATE: 07/22/2002 TIME: 10:30:41

Input Set : N:\RULE60\VERNETTE_R60\09676783.raw

Output Set: N:\CRF3\07222002\1676783.raw

SEQUENCE LISTING

```
4 (1) GENERAL INFORMATION:
              (i) APPLICANT: MCBRIDE, William J.
       7
                             GRIFFITHS, Gary L.
       9
             (ii) TITLE OF INVENTION: RADIOMETAL-BINDING PEPTIDE ANALOGUES
     11
            (iii) NUMBER OF SEQUENCES: 34
     13
             (iv) CORRESPONDENCE ADDRESS:
     14
                   (A) ADDRESSEE: FOLEY & LARDNER
     15
                   (B) STREET: 3000 K Street, N.W.
     16
                   (C) CITY: Washington
     17
                   (D) STATE: D.C.
     18
                   (E) COUNTRY: U.S.A.
     19
                   (F) ZIP: 20007-5109
     21
             (V) COMPUTER READABLE FORM:
     22
                   (A) MEDIUM TYPE: Floppy disk
     23
                   (B) COMPUTER: IBM PC compatible
     24
                  (C) OPERATING SYSTEM: PC-DOS/MS-DOS
     25
                   (D) SOFTWARE: PatentIn Release #1.0, Version #1.30
     27
            (vi) CURRENT APPLICATION DATA:
C--> 28
                  (A) APPLICATION NUMBER: US/09/676,783
C--> 29
                  (B) FILING DATE: 02-Oct-2000
     30
                  (C) CLASSIFICATION:
     32
           (vii) PRIOR APPLICATION DATA:
     33
                  (A) APPLICATION NUMBER: 08/893,749
     34
                  (B) FILING DATE: 11-Jul-1997
     36
          (Viii) ATTORNEY/AGENT INFORMATION:
     37
                  (A) NAME: Saxe, Bern D.
    38
                  (B) REGISTRATION NUMBER: 28,665
    39
                  (C) REFERENCE/DOCKET NUMBER: 018733/0804
    41
            (ix) TELECOMMUNICATION INFORMATION:
    42
                  (A) TELEPHONE: (202) 672-5300
    43
                  (B) TELEFAX: (202) 672-5399
       (2) INFORMATION FOR SEQ ID NO: 1:
    46
             (i) SEQUENCE CHARACTERISTICS:
    48
    49
                  (A) LENGTH: 7 amino acids
    50
                  (B) TYPE: amino acid
    51
                 (C) STRANDEDNESS:
    52
                 (D) TOPOLOGY: linear
    54
           (ii) MOLECULE TYPE: peptide
    57
           (ix) FEATURE:
    58
                 (A) NAME/KEY: Modified-site
    59
                 (B) LOCATION: 1
                 (D) OTHER INFORMATION: /product= "Nle"
```

DATE: 07/22/2002

```
PATENT APPLICATION: US/09/676,783
                                                               TIME: 10:30:41
                      Input Set : N:\RULE60\VERNETTE_R60\09676783.raw
                      Output Set: N:\CRF3\07222002\1676783.raw
     62
            (ix) FEATURE:
     63
                   (A) NAME/KEY: Modified-site
     64
                  (B) LOCATION: 4
     65
                  (D) OTHER INFORMATION: /note= "Xaa is D-Phe"
            (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:
W--> 70
             Xaa Asp His Xaa Arg Trp Lys
     71
        (2) INFORMATION FOR SEQ ID NO: 2:
     75
             (i) SEQUENCE CHARACTERISTICS:
     76
                  (A) LENGTH: 28 amino acids
     77
                  (B) TYPE: amino acid
    78
                  (C) STRANDEDNESS:
    79
                  (D) TOPOLOGY: linear
    81
            (ii) MOLECULE TYPE: peptide
    86
            (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:
            His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
    88
    89
                             5
                                                  10
                                                                       15
    91
            Met Ala Val Lys Lys Tyr Leu Asn Ser Ile Leu Asn
    92
                         20
    94 (2) INFORMATION FOR SEQ ID NO: 3:
             (i) SEQUENCE CHARACTERISTICS:
    97
                  (A) LENGTH: 28 amino acids
    98
                  (B) TYPE: amino acid
    99
                  (C) STRANDEDNESS:
    100
                   (D) TOPOLOGY: linear
    102
            (ii) MOLECULE TYPE: peptide
    107
            (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:
             Lys Pro Arg Arg Pro Tyr Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
    109
    110
                                                  10
    112
             Met Ala Val Lys Lys Tyr Leu Asn Ser Ile Leu Asn
    113
                         20
    115 (2) INFORMATION FOR SEQ ID NO: 4:
    117
             (i) SEQUENCE CHARACTERISTICS:
    118
                  (A) LENGTH: 24 amino acids
    119
                  (B) TYPE: amino acid
    120
                  (C) STRANDEDNESS:
   121
                  (D) TOPOLOGY: linear
            (ii) MOLECULE TYPE: peptide
   128
            (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:
             Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln Met Ala Val Lys
   130
   131
                             5
                                                  10
   133
            Lys Tyr Leu Asn Ser Ile Leu Asn
   134
                         20
   136 (2) INFORMATION FOR SEQ ID NO: 5:
   138
             (i) SEQUENCE CHARACTERISTICS:
   139
                  (A) LENGTH: 19 amino acids
   140
                  (B) TYPE: amino acid
   141
                  (C) STRANDEDNESS:
   142
                  (D) TOPOLOGY: linear
```

RAW SEQUENCE LISTING

RAW SEQUENCE LISTING PATENT APPLICATION: US/09/676,783

DATE: 07/22/2002 TIME: 10:30:41

Input Set : N:\RULE60\VERNETTE_R60\09676783.raw Output Set: N:\CRF3\07222002\I676783.raw

```
144
               (ii) MOLECULE TYPE: peptide
      149
               (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:
                Tyr Thr Arg Leu Arg Lys Gln Met Ala Val Lys Lys Tyr Leu Asn Ser
      151
      152
                1
                                                     10
      154
                Ile Leu Asn
      157 (2) INFORMATION FOR SEQ ID NO: 6:
      159
                (i) SEQUENCE CHARACTERISTICS:
      160
                     (A) LENGTH: 10 amino acids
      161
                     (B) TYPE: amino acid
      162
                     (C) STRANDEDNESS:
      163
                     (D) TOPOLOGY: linear
      165
              (ii) MOLECULE TYPE: peptide
      168
              (ix) FEATURE:
      169
                     (A) NAME/KEY: Modified-site
      170
                    (B) LOCATION: 1
      171
                    (D) OTHER INFORMATION: /note= "Xaa is pyroglutamic acid"
      174
              (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:
₩--> 176
               Xaa His Trp Ser Tyr Lys Leu Arg Pro Gly
      177
     179 (2) INFORMATION FOR SEQ ID NO: 7:
     181
               (i) SEQUENCE CHARACTERISTICS:
     182
                    (A) LENGTH: 10 amino acids
     183
                    (B) TYPE: amino acid
                    (C) STRANDEDNESS:
     185
                    (D) TOPOLOGY: linear
     187
             (ii) MOLECULE TYPE: peptide
     190
              (ix) FEATURE:
     191
                    (A) NAME/KEY: Modified-site
     192
                    (B) LOCATION: 1
     193
                   (D) OTHER INFORMATION: /note= "Xaa is pyroglutamic acid"
     196
             (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:
W--> 198
              Xaa His Tyr Ser Leu Lys Trp Lys Pro Gly
     199
     201 (2) INFORMATION FOR SEQ ID NO: 8:
     203
              (i) SEQUENCE CHARACTERISTICS:
     204
                   (A) LENGTH: 10 amino acids
     205
                   (B) TYPE: amino acid
     206
                   (C) STRANDEDNESS:
     207
                   (D) TOPOLOGY: linear
    209
             (ii) MOLECULE TYPE: peptide
    212
             (ix) FEATURE:
    213
                   (A) NAME/KEY: Modified-site
    214
                   (B) LOCATION: 1
    215
                   (D) OTHER INFORMATION: /note= "D isomer of
    216 2-naphthylalanine"
    218
             (ix) FEATURE:
    219
                   (A) NAME/KEY: Modified-site
    220
                   (B) LOCATION: 2
    221
                   (D) OTHER INFORMATION: /note= "D isomer of
```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/676,783

DATE: 07/22/2002 TIME: 10:30:41

Input Set : N:\RULE60\VERNETTE_R60\09676783.raw
Output Set: N:\CRF3\07222002\1676783.raw

```
222 4-chlorophenylalanine"
       224
               (ix) FEATURE:
       225
                      (A) NAME/KEY: Modified-site
       226
                      (B) LOCATION: 3
       227
                      (D) OTHER INFORMATION: /note= "Xaa is D-Trp"
       229
               (ix) FEATURE:
       230
                     (A) NAME/KEY: Modified-site
       231
                     (B) LOCATION: 6
       232
                     (D) OTHER INFORMATION: /note= "Xaa is D-Lys"
       234
               (ix) FEATURE:
      235
                     (A) NAME/KEY: Modified-site
      236
                     (B) LOCATION: 10
      237
                     (D) OTHER INFORMATION: /note= "Xaa is D-Ala"
      240
               (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:
 W--> 242
                Xaa Xaa Xaa Ser Arg Xaa Leu Arg Pro Xaa
      243
      245 (2) INFORMATION FOR SEQ ID NO: 9:
      247
                (i) SEQUENCE CHARACTERISTICS:
      248
                     (A) LENGTH: 10 amino acids
      249
                     (B) TYPE: amino acid
      250
                     (C) STRANDEDNESS:
      251
                     (D) TOPOLOGY: linear
      253
              (ii) MOLECULE TYPE: peptide
      256
              (ix) FEATURE:
      257
                     (A) NAME/KEY: Modified-site
      258
                     (B) LOCATION: 4
      259
                     (D) OTHER INFORMATION: /product= "Nle"
      261
              (ix) FEATURE:
      262
                    (A) NAME/KEY: Modified-site
      263
                     (B) LOCATION: 7
      264
                    (D) OTHER INFORMATION: /note= "Xaa is D-Phe"
      267
              (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9:
W--> 269
               Ser Tyr Ser Xaa Asp His Xaa Arg Trp Lys
      270
               1
                                                     10
     272 (2) INFORMATION FOR SEQ ID NO: 10:
     274
               (i) SEQUENCE CHARACTERISTICS:
     275
                    (A) LENGTH: 31 amino acids
     276
                    (B) TYPE: amino acid
     277
                    (C) STRANDEDNESS:
     278
                    (D) TOPOLOGY: linear
     280
              (ii) MOLECULE TYPE: peptide
     283
              (ix) FEATURE:
     284
                    (A) NAME/KEY: Modified-site
     285
                    (B) LOCATION: 17
     286
                    (D) OTHER INFORMATION: /product= "Nle"
     289
             (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 10:
              His Ser Asp Ala Val Phe Thr Glu Asn Tyr Thr Lys Leu Arg Lys Gln
     291
     292
                                                    10
W--> 294
              Xaa Ala Ala Lys Lys Tyr Leu Asn Asp Leu Lys Lys Gly Gly Thr
```

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/676,783

DATE: 07/22/2002 TIME: 10:30:41

Input Set : N:\RULE60\VERNETTE_R60\09676783.raw
Output Set: N:\CRF3\07222002\1676783.raw

```
295
                            20
                                                                      30
      297 (2) INFORMATION FOR SEQ ID NO: 11:
                (i) SEQUENCE CHARACTERISTICS:
      300
                     (A) LENGTH: 11 amino acids
      301
                     (B) TYPE: amino acid
      302
                     (C) STRANDEDNESS:
      303
                     (D) TOPOLOGY: linear
      305
               (ii) MOLECULE TYPE: peptide
      308
              (ix) FEATURE:
      309
                     (A) NAME/KEY: Modified-site
      310
                     (B) LOCATION: 1
      311
                     (D) OTHER INFORMATION: /note= "Xaa is pyroglutamic acid"
      314
              (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 11:
W--> 316
               Xaa His Tyr Ser Tyr Leu Lys Trp Lys Pro Gly
      317
      319 (2) INFORMATION FOR SEQ ID NO: 12:
      321
               (i) SEQUENCE CHARACTERISTICS:
      322
                     (A) LENGTH: 10 amino acids
      323
                    (B) TYPE: amino acid
      324
                    (C) STRANDEDNESS:
     325
                    (D) TOPOLOGY: linear
     327
              (ii) MOLECULE TYPE: peptide
              (ix) FEATURE:
     330
     331
                    (A) NAME/KEY: Modified-site
     332
                    (B) LOCATION: 1
     333
                    (D) OTHER INFORMATION: /note= "D isomer of
     334 2-naphthylalanine"
     336
              (ix) FEATURE:
     337
                    (A) NAME/KEY: Modified-site
     338
                    (B) LOCATION: 2
     339
                    (D) OTHER INFORMATION: /note= "D isomer of
     340 4-chlorophenylalanine"
     342
              (ix) FEATURE:
     343
                    (A) NAME/KEY: Modified-site
     344
                    (B) LOCATION: 3
     345
                    (D) OTHER INFORMATION: /note= "Xaa is D-Trp"
     347
             (ix) FEATURE:
     348
                    (A) NAME/KEY: Modified-site
     349
                    (B) LOCATION: 6
     350
                    (D) OTHER INFORMATION: /note= "Xaa is D-Lys"
     354
             (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 12:
              Xaa Xaa Xaa Ser Arg Xaa Trp Lys Pro Gly
W--> 356
     357
              1
                                                    10
     359 (2) INFORMATION FOR SEQ ID NO: 13:
     361
              (i) SEQUENCE CHARACTERISTICS:
     362
                   (A) LENGTH: 10 amino acids
     363
                   (B) TYPE: amino acid
     364
                   (C) STRANDEDNESS:
     365
                   (D) TOPOLOGY: linear
```

RAW SEQUENCE LISTING ERROR SUMMARY PATENT APPLICATION: US/09/676,783

DATE: 07/22/2002 TIME: 10:30:42

Input Set: N:\RULE60\VERNETTE_R60\09676783.raw

Output Set: N:\CRF3\07222002\1676783.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

```
Seq#:1; Xaa Pos.1,4
 Seq#:6; Xaa Pos.1
 Seq#:7; Xaa Pos.1
 Seq#:8; Xaa Pos.1,2,3,6,10
 Seq#:9; Xaa Pos.4,7
 Seq#:10; Xaa Pos.17
 Seq#:11; Xaa Pos.1
 Seq#:12; Xaa Pos.1,2,3,6
 Seq#:13; Xaa Pos.1,6
 Seq#:14; Xaa Pos.2,5
 Seq#:15; Xaa Pos.3,6
Seq#:16; Xaa Pos.2,5
Seq#:17; Xaa Pos.4,7
Seq#:18; Xaa Pos.4,7
Seq#:19; Xaa Pos.4,7
Seq#:20; Xaa Pos.3,6
Seq#:21; Xaa Pos.1,4
Seq#:24; Xaa Pos.1
Seq#:25; Xaa Pos.1,2,3,6
Seq#:26; Xaa Pos.1,6
Seq#:27; Xaa Pos.1,6
Seq#:29; Xaa Pos.4,7,8
Seq#:30; Xaa Pos.3,6
Seq#:31; Xaa Pos.4,7
Seq#:32; Xaa Pos.17
Seq#:33; Xaa Pos.1
Seq#:34; Xaa Pos.4,7
```

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/676,783

DATE: 07/22/2002 TIME: 10:30:42

Input Set : N:\RULE60\VERNETTE_R60\09676783.raw

Output Set: N:\CRF3\07222002\1676783.raw

```
L:28 M:220 C: Keyword misspelled or invalid format, [(A) APPLICATION NUMBER:]
 L:29 M:220 C: Keyword misspelled or invalid format, [(B) FILING DATE:]
 L:70 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0
 L:176 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:0
 L:198 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0
 L:242 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:0
 L:269 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:0
 L:294 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:16
 L:316 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:0
 L:356 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:0
 L:383 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:0
L:410 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:0
L:437 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:0
L:464 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:0
L:491 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:0
L:518 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:0
L:545 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19 after pos.:0
L:572 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20 after pos.:0
L:599 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21 after pos.:0
L:663 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:0
L:703 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25 after pos.:0
L:730 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26 after pos.:0
L:757 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27 after pos.:0
L:808 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29 after pos.:0
L:835 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30 after pos.:0
L:862 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31 after pos.:0
L:887 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32 after pos.:16
L:909 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33 after pos.:0
L:936 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34 after pos.:0
```